

1. (twice amended) A method for generating a moving haven boundary along a voyage plan comprising the steps of:

establishing a width[, centered on said voyage plan,] for said moving haven boundary;

creating [boundary] rectangles centered on said voyage plan, said rectangles having edges [at] separated by said width and lengths equal to lengths of strait line portions of said voyage plan[, said boundary comprising said edges]; and

determining pie shaped areas between rectangles at waypoints of said voyage plan, each of said pie shaped areas having [arcs between edges of] an arc centered at a waypoint and extending between vertices of rectangles on either side of said waypoint[s].

establishing said moving haven boundary with a polygonal line comprising said edges and said arcs.

Claim 3

lines 1-5 delete “said voyage plan includes an origin, at least one waypoint, a first waypoint of said at least one waypoint being at a specified distance from said origin, distances between adjacent waypoints of said at least one waypoint, a selected distance from a last waypoint of said at least one waypoint to an end point, and”

lines 11 and 12 delete “of said at least one waypoint”

Claim 6 line 1 delete “5” and insert therefore --1--

lines 1 and 2 delete “approximating step includes” and insert therefore -- arcs are approximated with--

1 8.(twice amended) A method in accordance with claim [7] 1 [wherein said
2 generating step includes] further including the steps of:

3 forming buffer rectangles centered on said boundary having widths equal to
4 twice [said] a selected distance from said boundary and lengths equal to distances
5 between vertices of said boundary;

6 forming buffer arcs between vertices of said buffer edges, said buffer edges
7 and said buffer arcs establishing polygonal lines internal and external to said
8 boundary; and

9 selecting said internal polygonal lines as [said] a buffer boundary.

1 20.(amended) An apparatus for providing a moving haven boundary along a
2 voyage plan comprising:

3 generator means for generating a polygonal line having line segments and
4 waypoints of said voyage plan;

5 rectangle means coupled to said generator means for establishing rectangle
6 line segments of rectangles along respective segments of said polygonal line, each
7 rectangle centered on said polygonal line of said voyage plan, having a width equal
8 to a preselected width of said moving haven and a length equal to its respective line
9 segment length;

10 arc means coupled to said rectangle means for providing an arc between a
11 trailing edge of a first rectangle and a leading edge of a second rectangle at a
12 selected waypoint, said leading and trailing edges intersecting at said selected
13 waypoint, said arc being represented by a series of arc line segments and formed
14 about an obtuse angle formed by said polygonal line at said selected waypoint; and

15 boundary means coupled to said rectangle means and said arc means for
16 generating said moving haven boundary.